

Figure 1A

SEQ ID NO:					
6	mouse_E3αI	MASEMEPEVQ	AID-RSLLC	SAAEI AGRWL	QATDLNREVY QHLAHCVPKI 49
4	human_E3αI	MASELEPEVQ	AID-RSLLC	SAAEI AGKWL	QATDLTREVV QHLAHYVPKI 49
115	mouse_E3αI	MADEEMDGAE	RMDVSPEPPL	APQPASWWD	QQVDFTAFH HHLAQLVPEI 50
2	human_E3αI	MADEEAGGTE	RMEISAEIPQ	TPQRASWWD	QQVDFTAFH HHLAQLVPEI 50
	Consensus	MA.E.....	.D...L..	....A.W.	Q.D..... .HLA..VP.I 50
6	mouse_E3αI	YCRGNPFPO	KEDTLAQHI L	LGPMEWYI CA	EDPALGF PKL EQANKPSHLC 99
4	human_E3αI	YCRGNPFPO	KEDMLAQHV L	LGPMEWYLCG	EDPAFGFPKL EQANKPSHLC 99
115	mouse_E3αI	YFAEMDPDLE	KQEESVQMSI	LTPLEWYLF G	EDPDICLEKL KHSG-AFQLC 99
2	human_E3αI	YFAEMDPDLE	KQEESVQMSI	FTP LEWYLF G	EDPDICLEKL KHSG-AFQLC 99
	Consensus	Y.....P...	K.....Q...	L.P.EWYL.G	EDP.....KL .....LC 100
6	mouse_E3αII	GRVFKVGEP T	YSCRDCAVDP	TCVLCMECF L	GSI HRDHRYR MTTSGGGFC 149
4	human_E3αII	GRVFKVGEP T	YSCRDCAVDP	TCVLCMECF L	GSI HRDHRYR MTTSGGGFC 149
115	mouse_E3αI	GKVFKSGETT	YSCRDCAI DP	TCVLCMDCF Q	SSVHKNHRYK MHTSTGGGC 149
2	human_E3αI	GRVFKSGETT	YSCRDCAI DP	TCVLCMDCF Q	DSVHKNHRYK MHTSTGGGC 149
	Consensus	GRVFK. GE.T	YSCRDCA. DP	TCVLCM CF.	.S.H..HRY. MT S. GGGFC 150
6	mouse_E3αII	DCGDTEAWKE	GPYCQKHKL S	SSEVVEEEED P	LVHLS EDVI A RTYN I FAI MF 199
4	human_E3αII	DCGDTEAWKE	GPYCQKH ELN	TSEIEEEEED P	LVHLS EDVI A RTYN I FAI TF 199
115	mouse_E3αI	DCGDTEAWKT	GPFCVDHEPG	RAGTTKESLH -	CPLNEEVI A QARRI FPSVI 198
2	human_E3αI	DCGDTEAWKT	GPFCVNHEPG	RAGTI KENSR -	CPLNEEVI V QARKI FPSVI 198
	Consensus	DCGDTEAWK.	GP.C..HE..	.....E...	...L.E.VIA ..IF.... 200

Figure 1B

6	mouse_E3 α II	RYAVDILTWE	KESELPEDLE	VAEKSDTYYC	MLFNDEVHTY	EQVIYTLQKA	249
4	human_E3 α II	RYAVEILTWE	KESELPADLE	MVEKSDTYYC	MLFNDEVHTY	EQVIYTLQKA	249
15	mouse_E3 α I	KYIVEMTIWE	EEKELPPELQ	IREKNERYYC	VLFNDEHHSY	DHVIYSLQRA	248
2	human_E3 α I	KYVVEMTIWE	EEKELPPELQ	IREKNERYYC	VLFNDEHHSY	DHVIYSLQRA	248
	Consensus	.Y.VE...WE	.E.ELP...L.	..EK...YYC	.LFNDE.H.Y	..VI.Y.LQ.A	250
6	mouse_E3 α II	VNCTQKEAIG	FATTVDRDGR	RPVRYGDFQY	CDQAKTVI VR	NTSRQTK- PL	298
4	human_E3 α II	VNCTQKEAIG	FATTVDRDGR	RSVRYGDFQY	CEQAKSVI VR	NTSRQTK- PL	298
15	mouse_E3 α I	LDCELAEAQL	HTTAIDKEGR	RAVKAGVYAT	CQEAKEDI KS	HSENVSQHPL	298
2	human_E3 α I	LDCELAEAQL	HTTAIDKEGR	RAVKAGAYAA	CQEAKEDI KS	HSENVSQHPL	298
	Consensus	..C...EA..	..T...D...GR	R.V..G....	C...AK..I..	.....PL	300
6	mouse_E3 α II	KVQVMHSSVA	AHQNFGLKAL	SWLGSVIGYS	DGLRRI LCQV	GLQEGPDGEN	348
4	human_E3 α II	KVQVMHSSIV	AHQNFGLKLL	SWLGSII GYS	DGLRRI LCQV	GLQEGPDGEN	348
15	mouse_E3 α I	HVEVLHSVVM	AHQKFALRLG	SWWNKI MSYS	SDFRQI FCQA	CLVEEPPGSEN	348
2	human_E3 α I	HVEVLHSEIM	AHQKFALRLG	SWWNKI MSYS	SDFRQI FCQA	CLREEPDSEN	348
	Consensus	.V.V.HS...	AHQ.F.L.L.	SW...I...YS	...R.I.CQ.	.L.E.PD.EN	350

Figure 1C

6	mouse_E3 α II	SSLVDRMLN	DSKLWKGARS	VYHQLFMSSL	LMDLKYKKLF	ALRFAKNYRQ	398
4	human_E3 α II	SSLVDRMLS	DSKLWKGARS	VYHQLFMSSL	LMDLKYKKLF	AVRFAKNYQQ	398
15	mouse_E3 α I	PCLISRLMW	DAKLYKGARK	ILHELIFSSF	FMEMEYKKLF	AMEFVKYYKQ	398
2	human_E3 α I	PCLISRLMW	DAKLYKGARK	ILHELIFSSF	FMEMEYKKLF	AMEFVKYYKQ	398
	Consensus	..L..RLM.	D.KL.KGAR.	..H.L..SS.	.M..YKKLF	A..F.K.Y.Q	400
6	mouse_E3 α II	LQRDFMEDDH	ERAVSVTALS	VQFFTAPTAL	RMLLTEENLM	TVIIKAFMDH	448
4	human_E3 α II	LQRDFMEDDH	ERAVSVTALS	VQFFTAPTAL	RMLITEENLM	SIIIKTFMDH	448
15	mouse_E3 α I	LQKEYISDDH	ERSISITALS	VQMLTVPTLA	RHLIEEQNVI	SVITETLLEV	448
2	human_E3 α I	LQKEYISDDH	DRSISITALS	VQMFTVPTLA	RHLIEEQNVI	SVITETLLEV	448
	Consensus	LQ.....DDH	ER...S.TALS	VQ.FT.PTLA	R.LI.E.N..	SVI..T...	450

[illegible]

Figure 1E

6	mouse_E3 α II	I RYCVS	QEKV	SIHLPI	SRLL	AGLHV	LLSKS	EVAYK	FPELL	PLSEL	SPPM	648
4	human_E3 α II	I YCVS	QEKV	SIHLPV	SRLL	AGLHV	LLSKS	EVAYK	FPELL	PLSEL	SPPM	648
15	mouse_E3 α I	KSYKV	SEDLV	SIHLPL	SRTL	AGLHV	RLSRL	GAISRL	HEFV	PFDSF	QVEVL	645
2	human_E3 α I	KSYRV	SEDLV	SIHLPL	SRTL	AGLHV	RLSRL	GAISRL	HEFV	SFEDF	QVEVL	645
	Consensus	..Y.VS...	V	SIHLP	SR.L	AGLHV	LS..	.....E..	P.....	L		650
6	mouse_E3 α II	I EHPL	RCLVL	CAQVH	AGMMR	RNGFS	LVNQI	YYYHN	VKCR	EMFDK	DI VML	698
4	human_E3 α II	I EHPL	RCLVL	CAQVH	AGMMR	RNGFS	LVNQI	YYYHN	VKCR	EMFDK	DVVM	698
15	mouse_E3 α I	VEYPL	RCLVL	VAQVVA	EMMR	RNGLS	LSI SQV	FYYQD	VKCR	EMYDK	DI I ML	695
2	human_E3 α I	VEYPL	RCLVL	VAQVVA	EMMR	RNGLS	LSI SQV	FYYQD	VKCR	EMYDK	DI I ML	695
	Consensus	.E.PLR	RCLVL	.AQV.A	.MMR	RNG.SL..	Q..YY..	VKCR.	EM	DKDI	.ML	700
6	mouse_E3 α II	QTGV	SMDPN	HFLM	MLSRF	ELYQL	FSTPD	YGKRF	SSEVT	HKDVV	QQNNT	748
4	human_E3 α II	QTGV	SMDPN	HFLM	MLSRF	ELYQI	FSTPD	YGKRF	SSEIT	HKDVV	QQNNT	748
15	mouse_E3 α I	QI GAS	MDPN	KFLLL	VLQRY	EL----	TDA	FNKTI	ST--K	DQDLI	KQYNT	738
2	human_E3 α I	QI GAS	MDPN	KFLLL	VLQRY	EL----	AEA	FNKTI	ST--K	DQDLI	KQYNT	738
	Consensus	Q.G.S	.MDPN	.FL...L	.R.	EL.....T...	..K..S.....	..D...Q	.NT			750

Figure 1F

6	mouse_E3 α II	LI EEMLYLII	MLVGERFNP	VGQAATDEI	KREI I HQLSI	KPMAHSELVK	798
4	human_E3 α II	LI EEMLYLII	MLVGERFSPG	VGQVNATDEI	KREI I HQLSI	KPMAHSELVK	798
15	mouse_E3 α I	LI EEMLQVLI	YI VGERYVPG	VGNVTREEVI	MREI I THLLCI	EPMPHSAI AR	788
2	human_E3 α I	LI EEMLQVLI	YI VGERYVPG	VGNVTKEEVT	MREI I HL LCI	EPMPHSAI AK	788
	Consensus	LI EEM... I	.. VGER.. PG	VG. V... . I	. REI I H. L. I	. PM HS... K	800
6	mouse_E3 α II	SLPEDENKET	GMESVI ESVA	HFKKPGLTGR	GMVELKPECA	KEFNLYFYHF	848
4	human_E3 α II	SLPEDENKET	GMESVI EAVA	HFKKPGLTGR	GMVELKPECA	KEFNLYFYHF	848
15	mouse_E3 α I	NLPENENNET	GLENVI NKVA	TFKKPGVSGH	GVYELKDESL	KDFNMV FYHY	838
2	human_E3 α I	NLPENENNET	GLENVI NKVA	TFKKPGVSGH	GVYELKDESL	KDFNMV FYHY	838
	Consensus	. LPE. EN. ET	G. E. VI .. VA	. FKKPG. . G.	G. YELK. E..	K. FN. YFYH.	850
6	mouse_E3 α II	SRAEQSKAE	AQRKLKRENK	EDTALPPPAL	PPFCPLFASL	VNI LQCDVML	898
4	human_E3 α II	SRAEQSKAE	AQRKLKQNR	EDTALPPPV	PPFCPLFASL	VNI LQSDVML	898
15	mouse_E3 α I	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	VNLLSCDVM	888
2	human_E3 α I	SKTQHSKAEH	MQKKRRKQEN	KDEALPPPPP	PEFCPAFSKV	I NLLNCDI MM	888
	Consensus	S.... SKAE.	. Q. K... Q..	. D. ALPPP..	P. FCP. F... VN. L. CDVM		900

Figure 1G

SEQ ID NO:							
6	mouse_E3αII	YI MGTI LQWA	VEHHGSAWSE	SMLQRVLHLI	GMALQEEKHH	LENAVEGHVQ	948
4	human_E3αII	CI MGTI LQWA	VEHNGYAWSE	SMLQRVLHLI	GMALQEEKQH	LENVTEEHVV	948
15	mouse_E3αI	YI LRTI FERA	VDTESNLWTE	GMLQMAFHI L	ALGLLEEKQQ	LQKAPEEEV-	937
2	human_E3αI	YI LRTVFERA	IDTDSNLWTE	GMLQMAFHI L	ALGLLEEKQQ	LQKAPEEEV-	937
	Consensus	YI..TI...A	V.....WE	.MLQ...H..	...L.EEKQ.	L..A.EE.V.	950
6	mouse_E3αII	TFTFTQKI SK	PGDAPHNSPS	I LAMLETQN	APSLAETHKDM	IRWLLKMFNA	998
4	human_E3αII	TFTFTQKI SK	PGEAPKNSPS	I LAMLETQN	APYLEVHKDM	IRW LKTFNA	998
15	mouse_E3αI	AFDFYHKASR	LGSSAMNAQN	I QMLLERLKG	IPQLEGQKDM	ITW LQMFDI	987
2	human_E3αI	TFDFYHKASR	LGSSAMNI QM	L---LEKLKG	IPQLEGQKDM	ITW LQMFDI	984
	Consensus	TF.F..K.S.	.G....N...	I...LE.L..	.P.LE..KDM	I.W.L.MF..	1000
6	mouse_E3αII	I KKI RE--CS	SSSPVAEAEAG	TI MEESRDK	DKAERKRKAE	IARLRREKI M	1046
4	human_E3αI	VKKMRE--SS	PTSPVAETEG	TI MEESRDK	DKAERKRKAE	IARLRREKI M	1046
15	mouse_E3αI	VKRLREKSCL	VVATTSGLEC	IKSEETHDK	EKAERKRKAE	AARLHRQKI M	1037
2	human_E3αI	VKRLREKSCL	I VATTSGSES	IKNDIETHDK	EKAERKRKAE	AARLHRQKI M	1034
	Consensus	VK..RE..C.	.....E.	...EE...DK	.KAERKRKAE	.ARL.R.KI M	1050

Figure 1H

6	mouse_E3 α II	AQMSEMQRHF	I	DENKELFQQ	TLELDTSASA	TL--	DSSPPV	SDAALTALGP	1094
4	human_E3 α II	AQMSEMQRHF	I	DENKELFQQ	TLELDASTA	VL--	DHSPVA	SDMTLTALGP	1094
15	mouse_E3 α I	AQMSALQKNF	I	ETHKLMYDN	TSEVTGKEDS	I	MEESTSAV	SEASRIALGP	1087
2	human_E3 α I	AQMSALQKNF	I	ETHKLMYDN	TSEMPGKEDS	I	MEESTPAV	SDYSRIALGP	1084
	Consensus	AQMS..Q..F	I...	K.....	T.E.....	.....	S.P.V	SD....ALGP	1100
6	mouse_E3 α II	AQTQVPEPRQ	F	VTCLLCQEE	QEVTVGSRAM	VLA	AFVQRST	VLSKDRTKTI	1144
4	human_E3 α II	TQTQVPEQRQ	F	VTCLLCQEE	QEVKVESRAM	VLA	AFVQRST	VLSKNRSKFI	1144
15	mouse_E3 α I	KRGPAVTEKE	V	LTCILCQEE	QEVKLENNAM	VLS	ACVQKST	ALTQHRGKPV	1137
2	human_E3 α I	KRGPSVTEKE	V	LTCILCQEE	QEVKIENNAM	VLS	ACVQKST	ALTQHRGKPI	1134
	Consensus	.....	..	TCILCQEE	QEVK.E..	AM	VL.A.VQ.ST	.L...R.K.I	1150
6	mouse_E3 α II	AD-PEKYDPL	F	MHPDLSCGT	HTGSCGHVMH	AHC	WQRYFDS	VQAKEQRRQQ	1193
4	human_E3 α II	QD-PEKYDPL	F	MHPDLSCGT	HTSSCGHI	MH	AHCWQRYFDS	VQAKEQRRQQ	1193
15	mouse_E3 α I	DHLGETLDPL	F	MDPDLAHGT	YTGSCGHVMH	AVC	WQKYFEA	VQ---LSSQQ	1184
2	human_E3 α I	ELSGEALDPL	F	MDPDLAYGT	YTGSCGHVMH	AVC	WQKYFEA	VQ---LSSQQ	1181
	Consensus	....E...DPL	F	M.PDL..GT	.TGSCGHVMH	A.CWQ.	YF..	VQ.....QQ	1200

Figure 1I

6	mouse_E3 α II	RLRLHTSYDV	ENGEFLCPLC	ECLCNTVIPL	L-LPPRSILS	RRLN-FSDQP	1241
4	human_E3 α II	RLRLHTSYDV	ENGEFLCPLC	ECLCNTVIPL	L-LPPRNIFN	NRLN-FSDQP	1241
15	mouse_E3 α I	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENAEALAQLL	1233
2	human_E3 α I	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENADALAQLL	1230
	Consensus	R.....D	E.GE.LCPLC	..L.NTVIP.	..L.P..I.S	.....	1250
6	mouse_E3 α II	DLAQWTRAVT	QQIKVVQMLR	RKHNAA-DTS	SSEDTEAMNI	IPIPEGFRPD	1290
4	human_E3 α II	NLTQWRTIS	QQIKALQFLR	KEESTP-NNA	STKNSENVDE	LQLPEGFRPD	1290
15	mouse_E3 α I	TLARWQTVL	ARISGYNIKH	AKGEAPAVPV	LFNQMGDST	FEFHSILSFG	1283
2	human_E3 α I	TLARWQTVL	ARISGYNI RH	AKGENP-IPI	FFNQMGDST	LEFHSILSFG	1279
	Consensus	.LA.W.TV.	..I.....	.K...P....	.....	.....	1300
6	mouse_E3 α II	FYPRNPYSDS	I KEMLTTFGT	AAYKVGLKVH	PNEGDPVRPI	LCWGTCAVTI	1340
4	human_E3 α II	FRPKI PYSES	I KEMLTTFGT	ATYKVGLKVH	PNEEDPRVPI	MCWGSCAYTI	1340
15	mouse_E3 α I	VQSSVKYSNS	I KEMVILFAT	TIYRI GLKVP	PDELDPRVPM	MTWSTCAFTI	1333
2	human_E3 α I	VESSI KYSNS	I KEMVILFAT	TIYRI GLKVP	PDERDPRVPM	LTWSTCAFTI	1329
	Consensus	.....YS.S	I KEM...F.T	..Y..GLKV.	P.E.DPRVP.	..W.TCA.TI	1350

SEQ ID NO:	6	mouse_E3αII	4	human_E3αII	15	mouse_E3αI	2	human_E3αI	Consensus	6	mouse_E3αII	4	human_E3αII	15	mouse_E3αI	2	human_E3αI	Consensus	6	mouse_E3αII	4	human_E3αII	15	mouse_E3αI	2	human_E3αI	Consensus			
	QSIERILSDE	EKPVFGPLPC	RLDDCLRLST	RFAAAHWTVA	LLPVVQGHFC	1390	QSIERILSDE	DKPLFGPLPC	RLDDCLRLST	RFAAAHWTVA	SVSVVQGHFC	1390	QAIENLLGDE	GKPLFGALQN	RQHSGLKALM	QFAVAQRATC	PQVLIHKHLA	1383	QAIENLLGDE	GKPLFGALQN	RQHNGLKALM	QFAVAQRITC	PQVLIQKHLV	1379	Q . IE . . L . DE	. KPLFG . L . .	R L . . L .	. FA . A . . . . .	. . . . . Q . H . .	1400
	KLFASLVPSD	SYEDLPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGSSL	1437	KLFASLVPSD	SHEELPCILD	IDMFHLLVGL	VLAFPALQCQ	D---FSGISL	1437	RLLSVILPNL	QSENTPGLLS	VDLFHVVLVGA	VLAFPSLYWD	DTVDLQPSPL	1433	RLLSVVLPNL	KSEDTPCLLS	IDLFHVVLVGA	VLAFPSLYWD	DPVDLQPSVV	1429	. L PN .	. . E . . PC . L .	ID . FH . LVG .	VLAFP . L . . .	D SSL	1450
	ATG--DLHIF	HLVTMAHIVQ	ILLTSCTEEN	---GMDQENP	TGEEELAILS	1482	GTG--DLHIF	HLVTMAHIIQ	ILLTSCTEEN	---GMDQENP	PCEEEASVLA	1482	SSSYNHLYLF	HLITMAHMLQ	ILLTTDTDLS	PGPPLAEGEE	DSEEEARCASA	1483	SSSYNHLYLF	HLITMAHMLQ	ILLTVDTGL-	---PLAQVQE	DSEEAHSASS	1475	. . . . . L . . F	HL . TMAH . . Q	ILLT . . T . .	--- Q . . .	. . . . . EE	1500

Figure 1K

6	mouse_E3 α II	LHKTQHQTG	SALKEAPSGW	HLWRSVRAAI	MPFLKCSAL	FHYLNGVPAP	1532
4	human_E3 α II	LYKTLHQYTG	SALKEIPSGW	HLWRSVRAGI	MPFLKCSALF	FHYLNGVPSP	1532
15	mouse_E3 α I	FFVEVSQHTD	GLTGCGAPGW	YLWLSLRNGI	TPYLRCAALL	FHYLLGVAPP	1533
2	human_E3 α I	FFAEISQYTS	GSIGCDIPGW	YLWVSLKNGI	TPYLRCAALF	FHYLLGVTPP	1525
	Consensus	.....QYT.	.....GW	.LW.S.R.GI	.P.L.C.AL	FHYL.GV..P	1550
6	mouse_E3 α II	PDLQV-SGTS	HFEHLCNYLS	LPTNLIHLFQ	ENSDIMNSLI	ESWCQNSEVK	1581
4	human_E3 α II	PDIQV-PGTS	HFEHLCSYLS	LPNNLICLFQ	ENSEIMNSLI	ESWCNNEVK	1581
15	mouse_E3 α I	EELFANSAEG	EFSALCSYLS	LPTNLFLLFQ	EYWDTIRPLL	QRWCGDPALL	1583
2	human_E3 α I	EELHTNSAEG	EYSALCSYLS	LPTNLFLLFQ	EYWDTVRPLL	QRWCADPALL	1575
	Consensus	..L...S...	.F..LCSYLS	LPTNL..LFQ	E..D....L.	..WC.....	1600
6	mouse_E3 α II	RYLNGERGAI	SYPRGANKLI	DLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
4	human_E3 α II	RYLEGERDAI	RYPRESNKLI	NLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
15	mouse_E3 α I	KSLKQKSAVV	RYPRKRNSLI	ELPEDYSCLL	NQASHFRCPR	SADDERKHPV	1633
2	human_E3 α I	NCLKQKNTVV	RYPRKRNSLI	ELPDDYSCLL	NQASHFRCPR	SADDERKHPV	1625
	Consensus	..L.....	RYPR..N.LI	.LPEDYS.L.	NQAS.F.CP.	S..D....P.	1650

Figure 1L

6	mouse_E3 α II	LCLVCGSLLC	SQSYCCQAEI	EGEDVGACTA	HTYSCGSGAG	I FLRVRECQV	1681
4	human_E3 α II	LCLVCGSLLC	SQSYCCQTEL	EGEDVGACTA	HTYSCGSGVG	I FLRVRECQV	1681
15	mouse_E3 α I	LCLFCGAILC	SQNI CCQEIV	NGEVVGACVF	HALHCGAGVC	I FLKI RECRV	1683
2	human_E3 α I	LCLFCGAILC	SQNI CCQEIV	NGEVVGACIF	HALHCGAGVC	I FLKI RECRV	1675
	Consensus	LCL. CG.. LC	SQ.. CCQ...	. GE. VGAC..	H... CG. GV.	I FL... REC. V	1700
6	mouse_E3 α II	LFLAGKTKGC	FYSPPYLDDY	GETDQGLRRG	NPLHLCQERF	RKI QKLWQQH	1731
4	human_E3 α II	LFLAGKTKGC	FYSPPYLDDY	GETDQGLRRG	NPLHLCKERF	KKI QKLWHQH	1731
15	mouse_E3 α I	VLVEGKARGC	AYPAPYLDEY	GETDPGLKRG	NPLHLSRERY	RKLHLVWQQH	1733
2	human_E3 α I	VLVEGKARGC	AYPAPYLDEY	GETDPGLKRG	NPLHLSRERY	RKLHLVWQQH	1725
	Consensus	... GK... GC	. Y.. PYLD. Y	GETD. GL. RG	NPLHL... ER.	RK... WQQH	1750
6	mouse_E3 α II	SITEEI GHAAQ	EANQTLVGI D	WQHL			1755
4	human_E3 α II	SVTEEI GHAAQ	EANQTLVGI D	WQHL			1755
15	mouse_E3 α I	CIIEEI ARSQ	ETNQMLFGFN	WQLL			1757
2	human_E3 α I	CIIEEI ARSQ	ETNQMLFGFN	WQLL			1749
	Consensus	. I. EEI ... Q	E. NQ. L. G..	WQ. L			1774

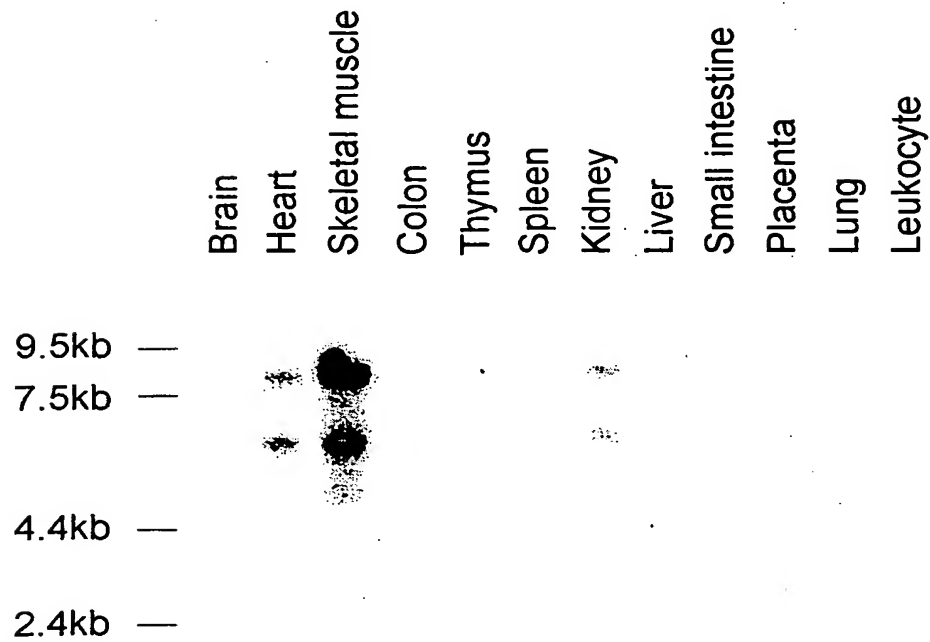


FIG. 3

Tth Expression Profile of huE3 α -I in Human Tissues

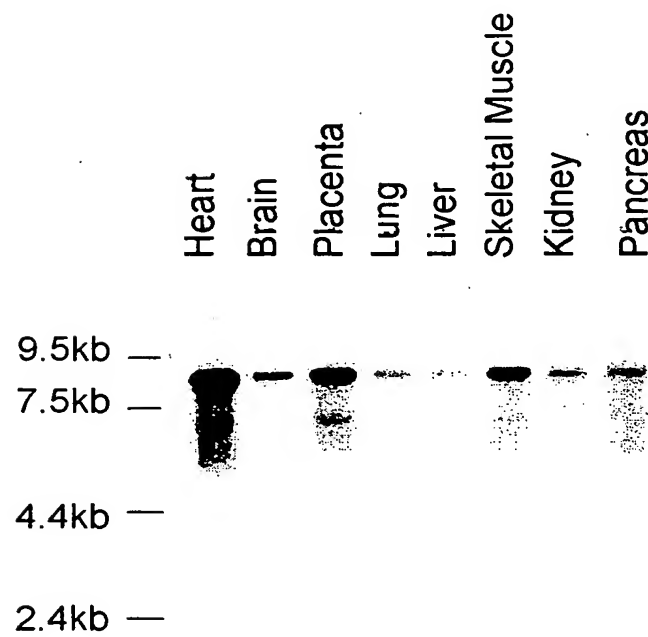


Figure 4
Ubiquitination of Endogenous Proteins

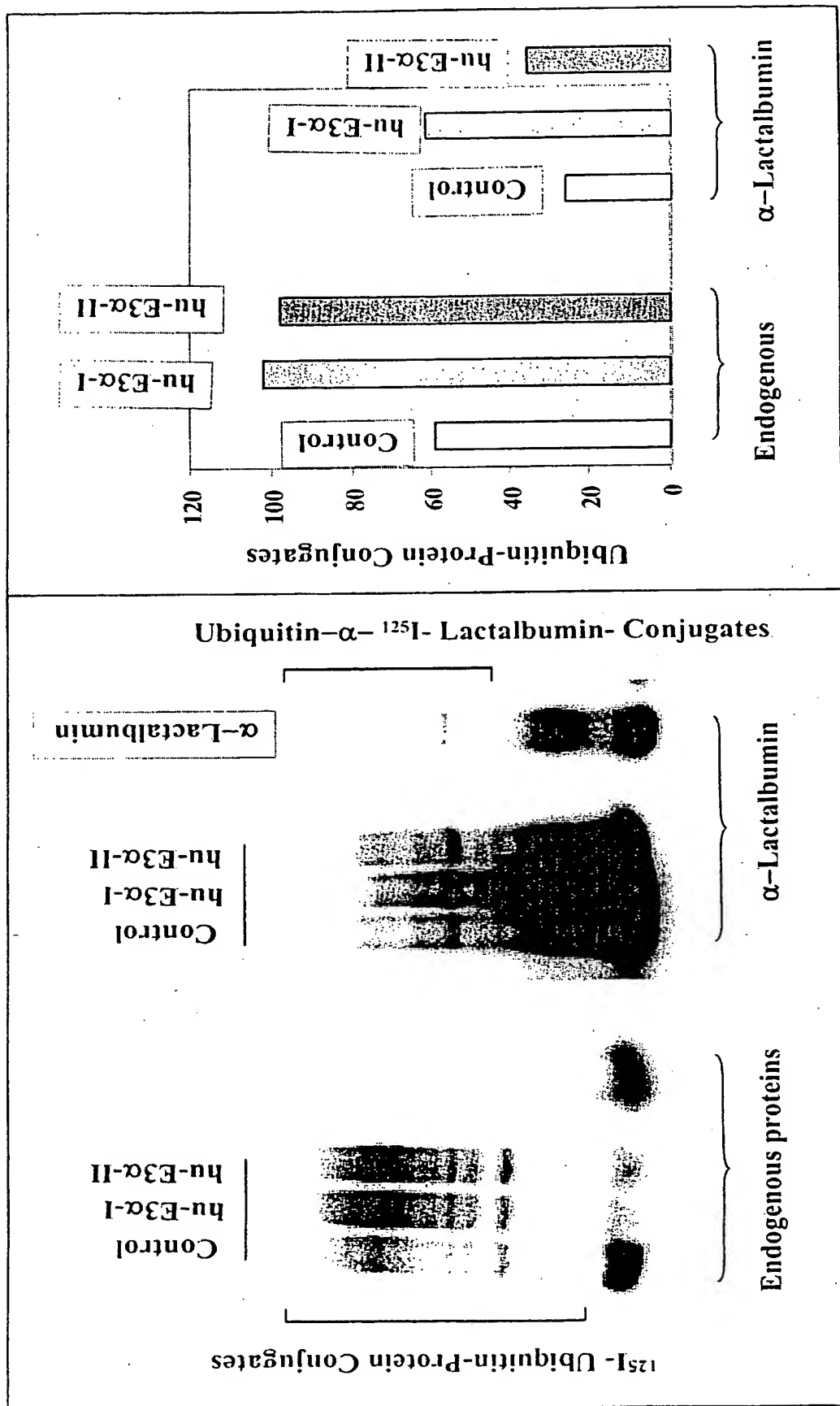


Figure 5
Transfection of Human E3 α -I or E3 α -II cDNA Stimulates
Ubiquitin Conjugation in Cultured Muscle Cell Lines

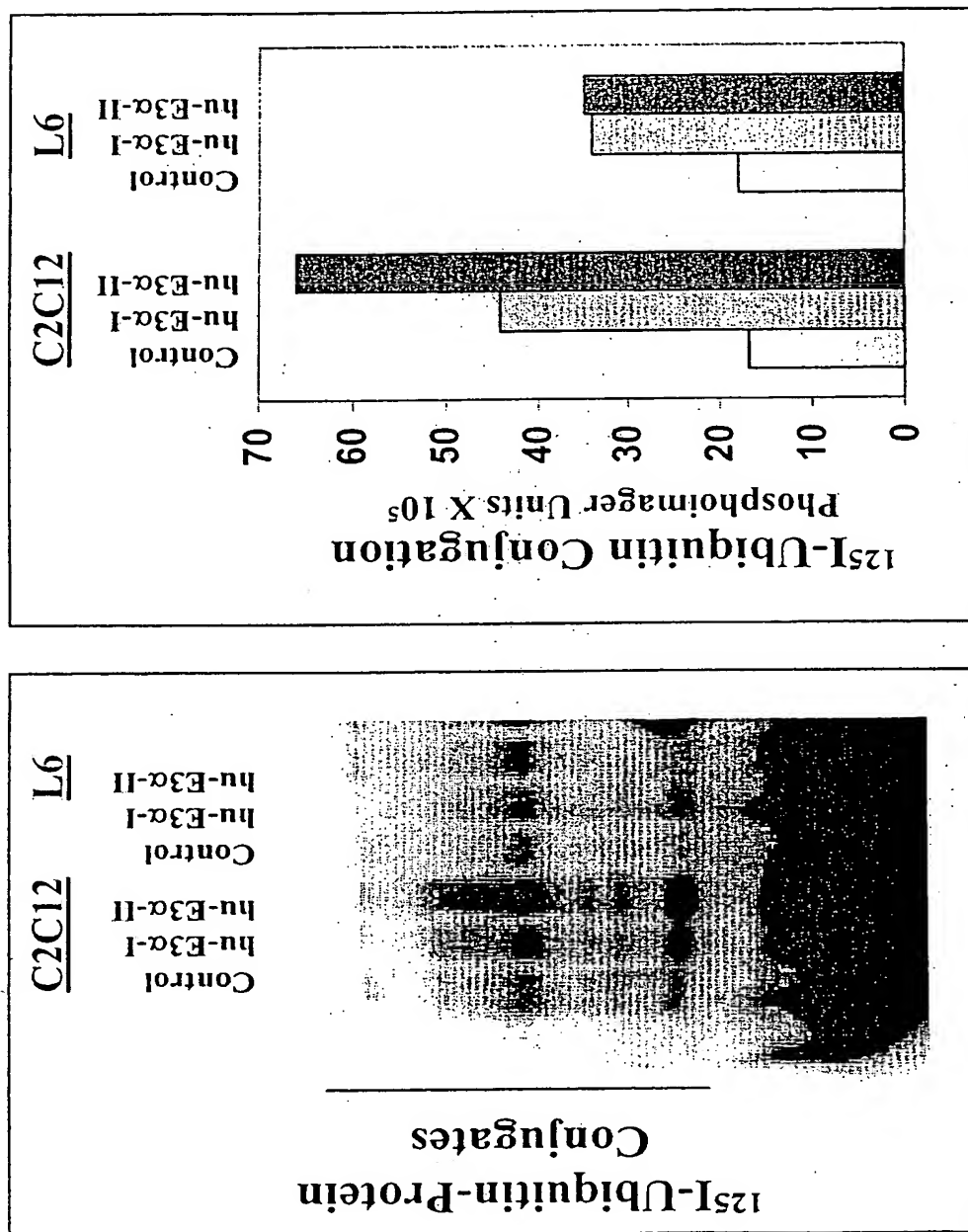


Figure 6
 125 I-Ubiquitin Conjugation to Muscle Proteins and Its Sensitivity to E3 α Inhibitor
in Skeletal Muscle Extracts

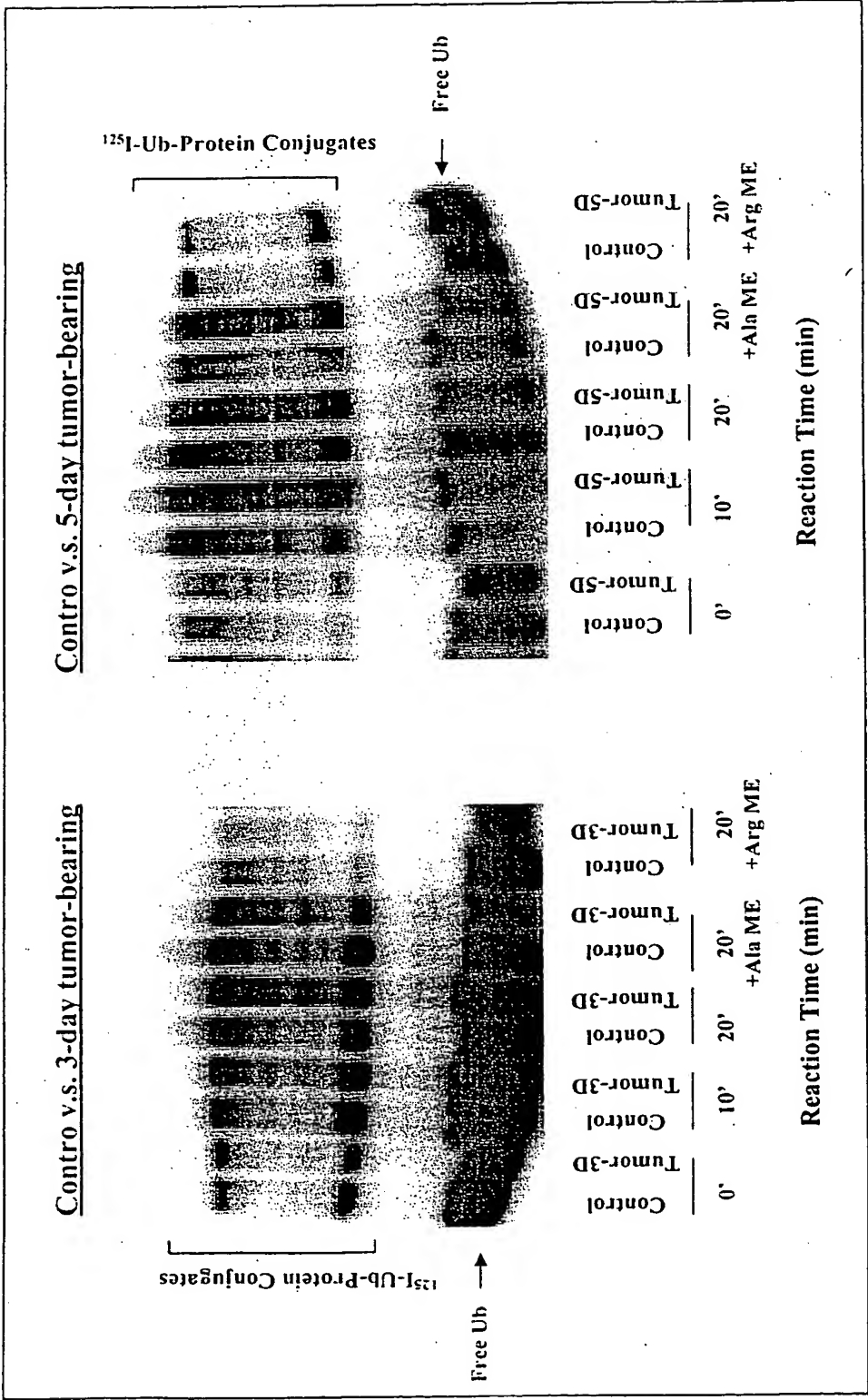


Figure 7
 Rates of Ubiquitination of N-end Rule Substrate
 α -Lactalbumin in Skeletal Muscle Extracts

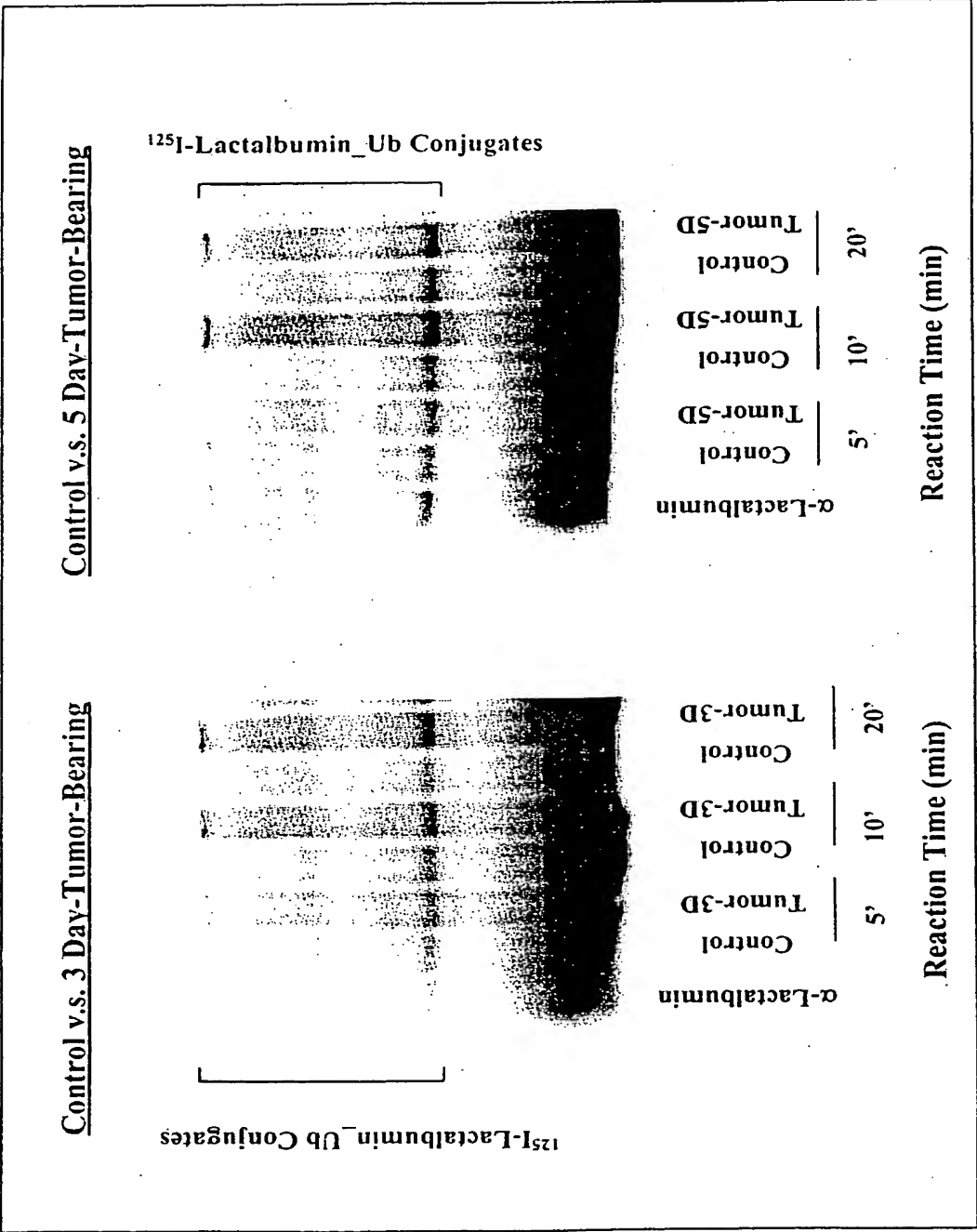


Figure 8
Northern blot analysis of E3 α -I & E3 α -II expression
in gastrocnemius muscles in YAH-130 experimental cachexia model

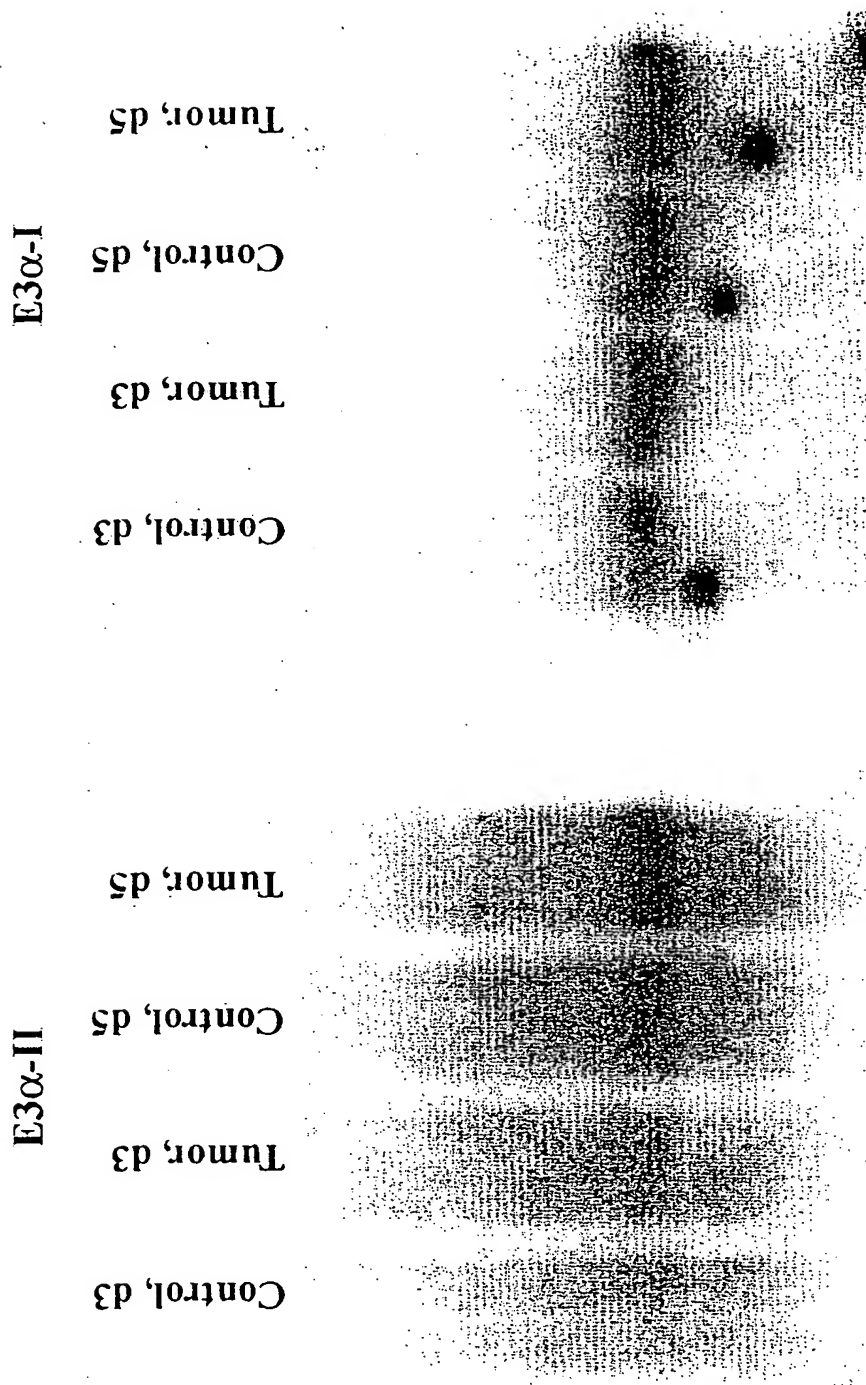


Figure 9

**Northern blot analysis of E3 α -I and E3 α -II expression in
gastrocnemius muscle and cardiac muscle
in C26 experimental cachexia model**

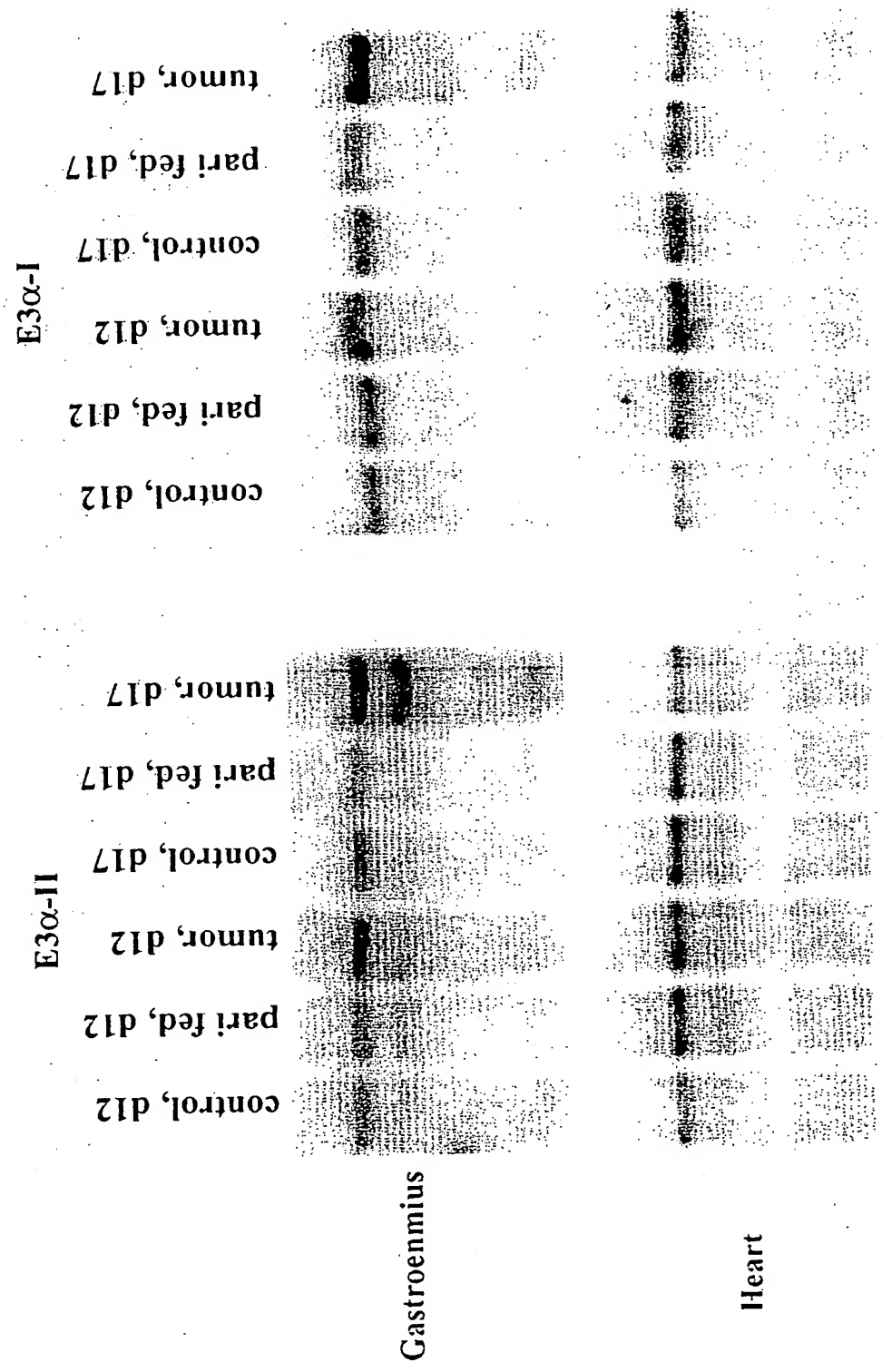


Figure 10
 Proinflammatory cytokines TNF- α and IL-6
 induce E3 α -II Expression in C2C12 myotube culture

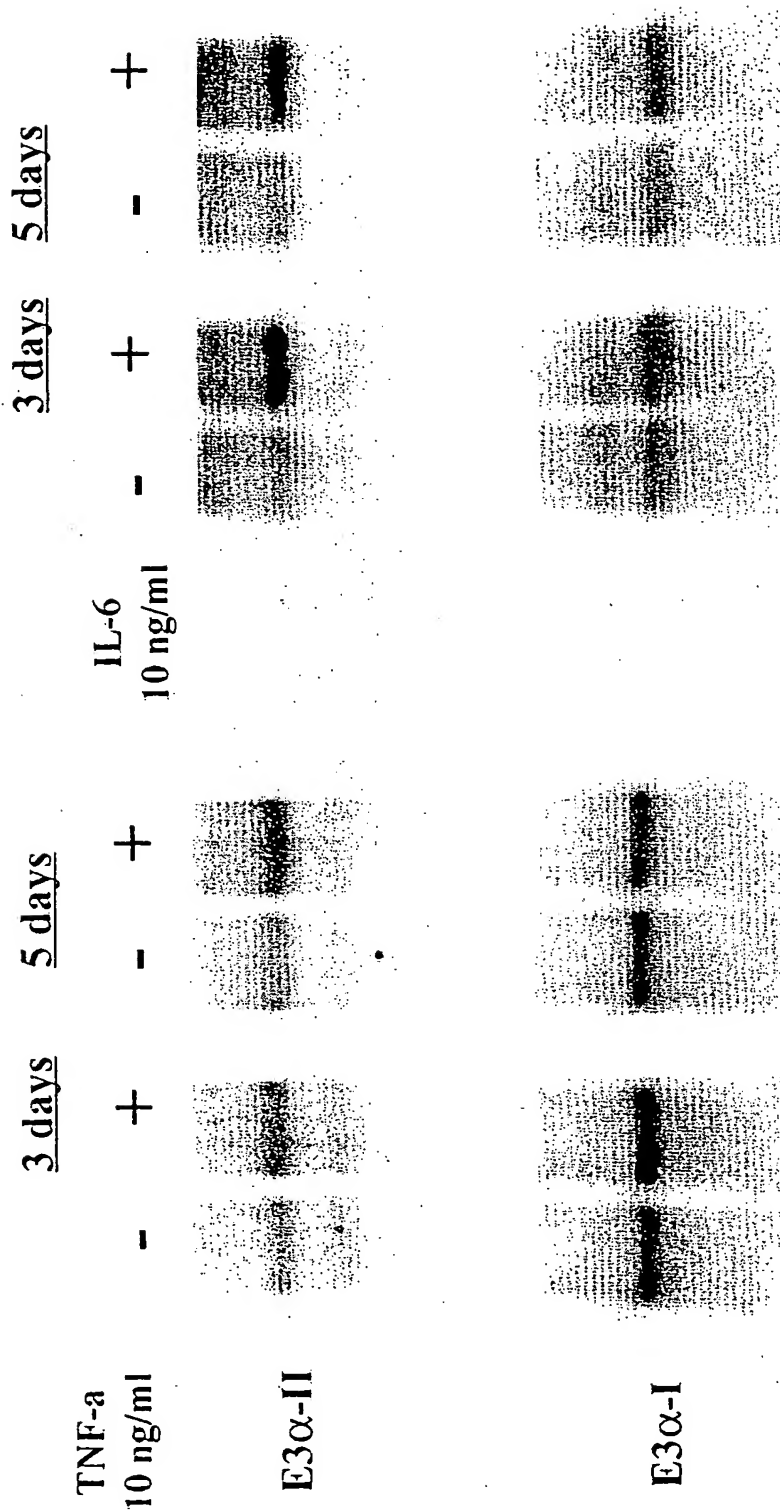


Figure 11
IL-6 Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures

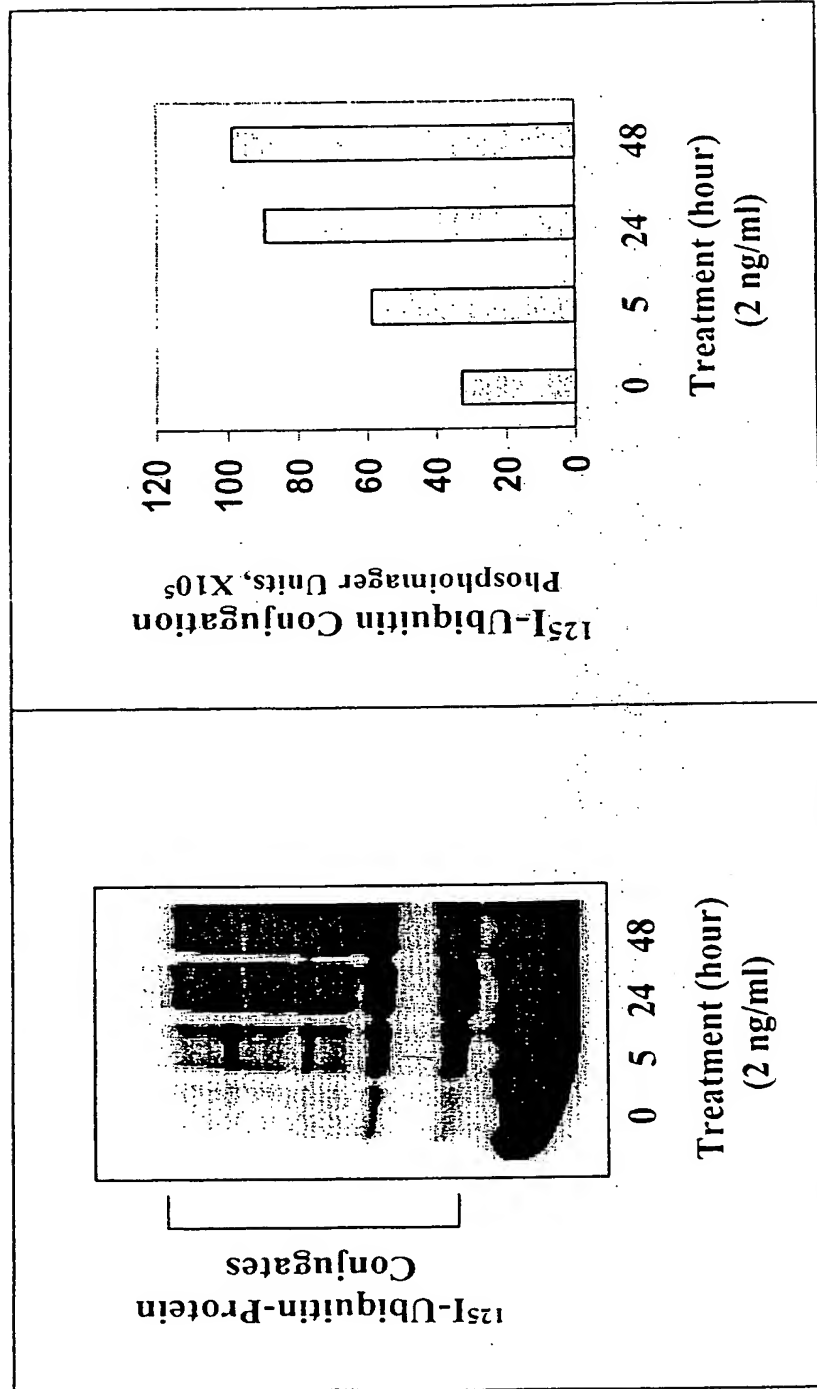


Figure 12
TNF α Elicits Accelerated Ubiquitination in C2C12 Myotube Cultures

